

# *Internet of Things*

Does a BA need to change gears?

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*ITC Infotech*



# Internet of Things – what we knew...



Wearables



Smart manufacturing



Smart cities



Health care

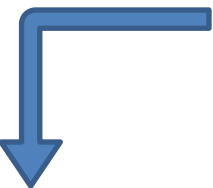


Automotive



Building & home automation





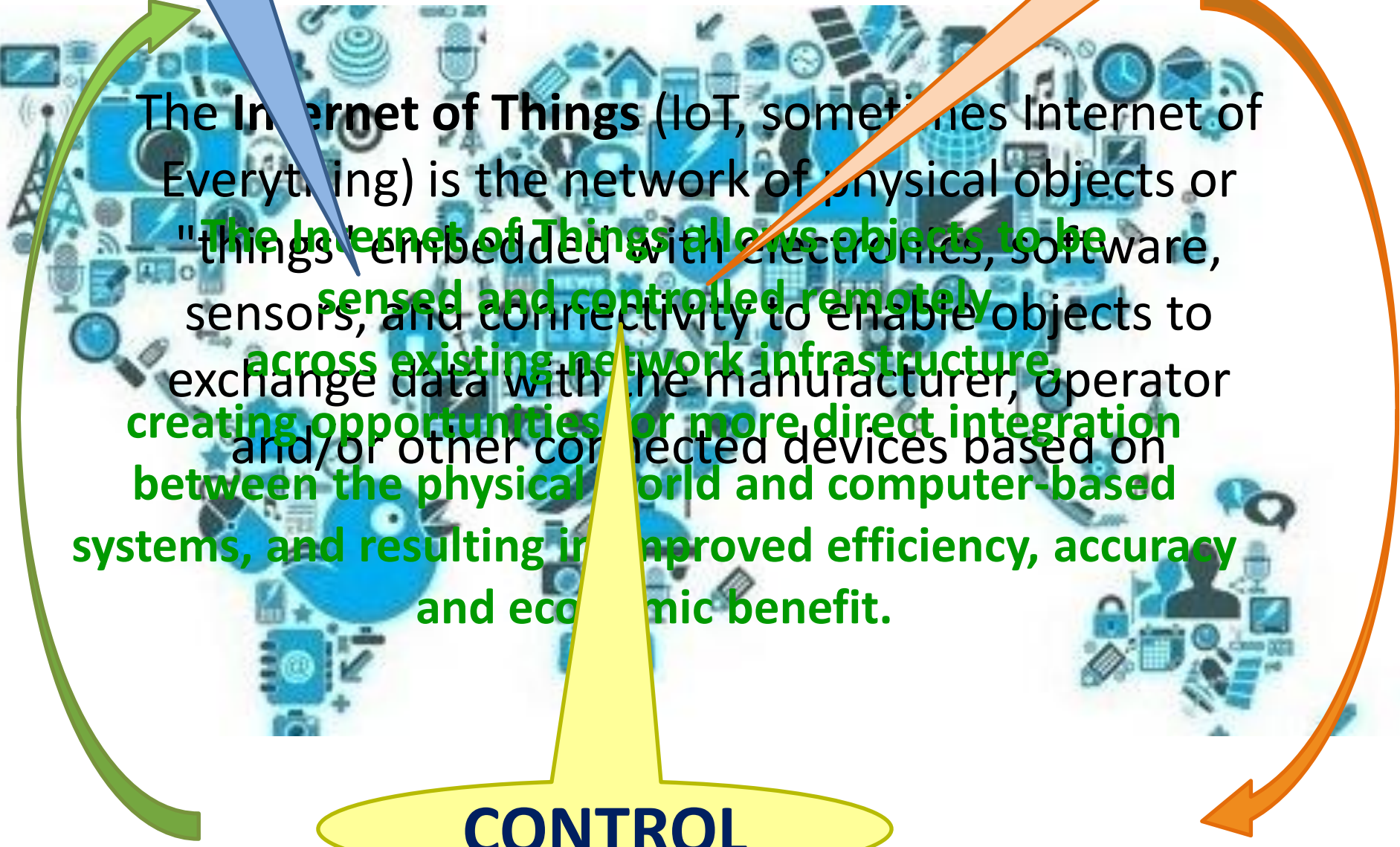


Sensor(s)

Data  
Analysis

The Internet of Things (IoT, sometimes Internet of Everything) is the network of physical objects or "things" embedded with electronics, software, sensors, and connectivity to enable objects to exchange data with the manufacturer, operator and/or other connected devices based on systems, and resulting in improved efficiency, accuracy and economic benefit.

CONTROL



# Anybody recognize this?



# 1. Sensors ....



Proximity

Speed

Direction



What do we need to know?

1. What sensors will be used?
2. How will data be received?
3. What is the sensitivity & accuracy?
4. What is the time lag to sense and report?
5. What is the Sampling duration?
6. Is data going to come as a continuous feed or discrete flow?

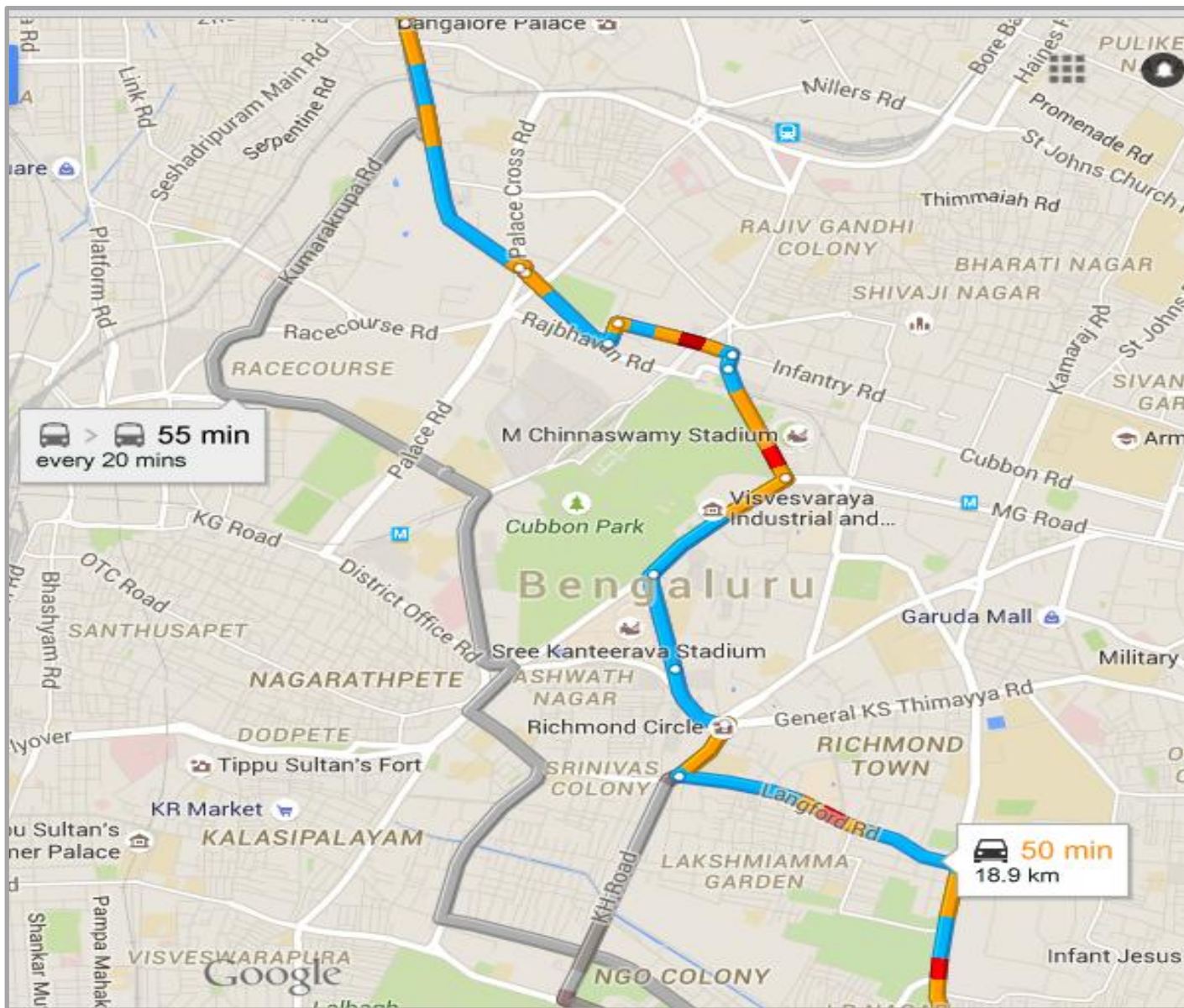
## 2. Analyse ... Why do we need the analysis

1. Large amount of data flows in
2. Is it all interlinked? Some may be.
3. What do I need from the data?  
Exert Control
  - Each sensory data has a function; we need to determine the control effect and magnitude
4. Is data originating from all sensors under our control?  
Not necessarily!
  - We might be needing data from the net.

Not ~~MIGHT~~ but  
we **WILL** be using extensive data in most cases



# External Data – Give me some more examples





### 3. Control – Factors which will play a part

1. Manual Control will require voice to data conversion and a larger dictionary
2. Do I need to provide automation with manual override?
3. What is my control equipment characteristic?
4. What is the minimum quantum of change which can be triggered?
5. What is the lag for response time?  
How soon will I know the additional correction required?
6. Should I rely on history? Leave that to Analysis stage.

### 3. Control – We are talking automation



- Proximity – Yeah definitely
- Speed – MAYBE ...  
Personal Preference  
    Default speed definitely  
    Speed Limit – be careful
- Route – Well there is a challenge here  
because of it's dynamic nature

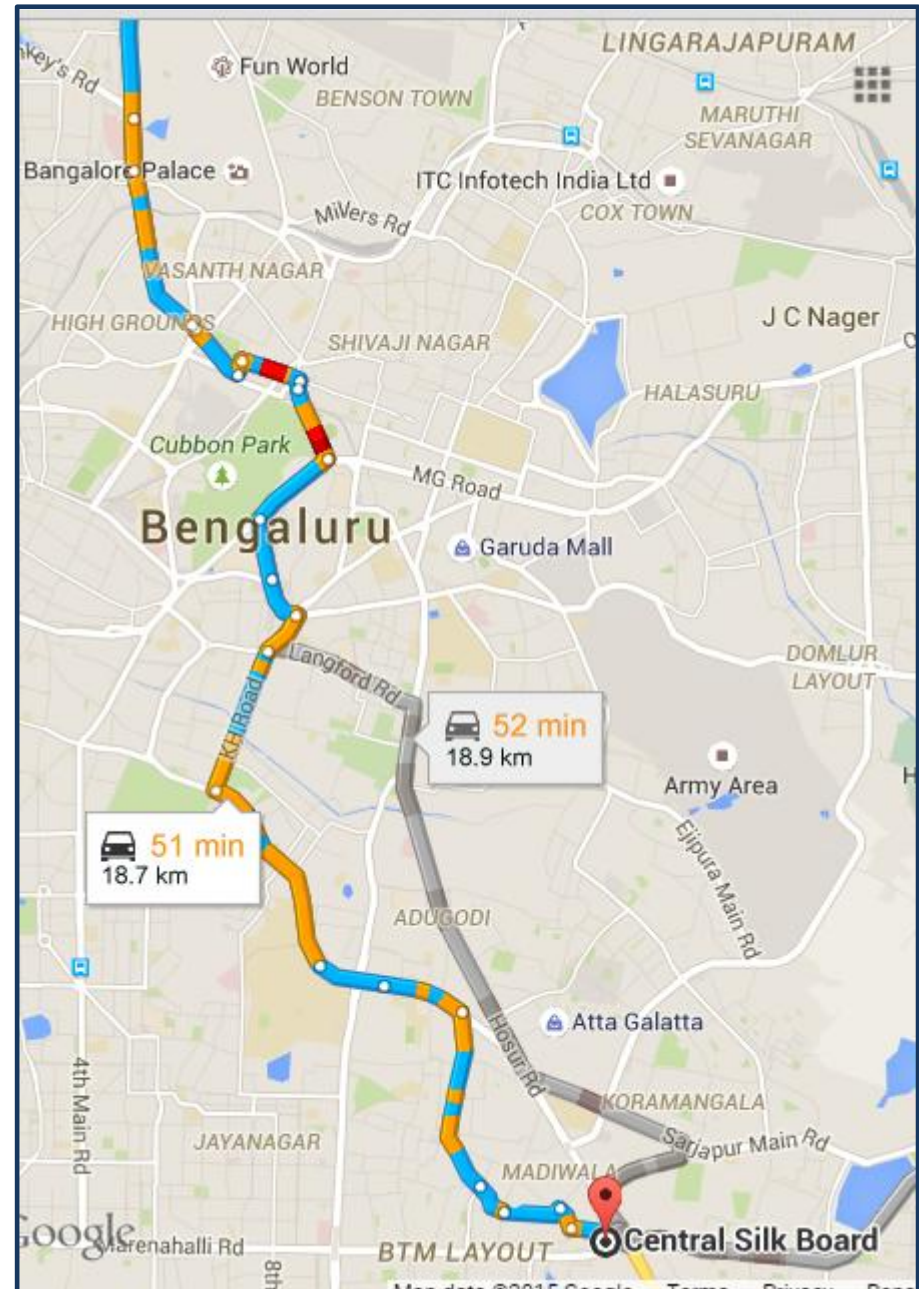
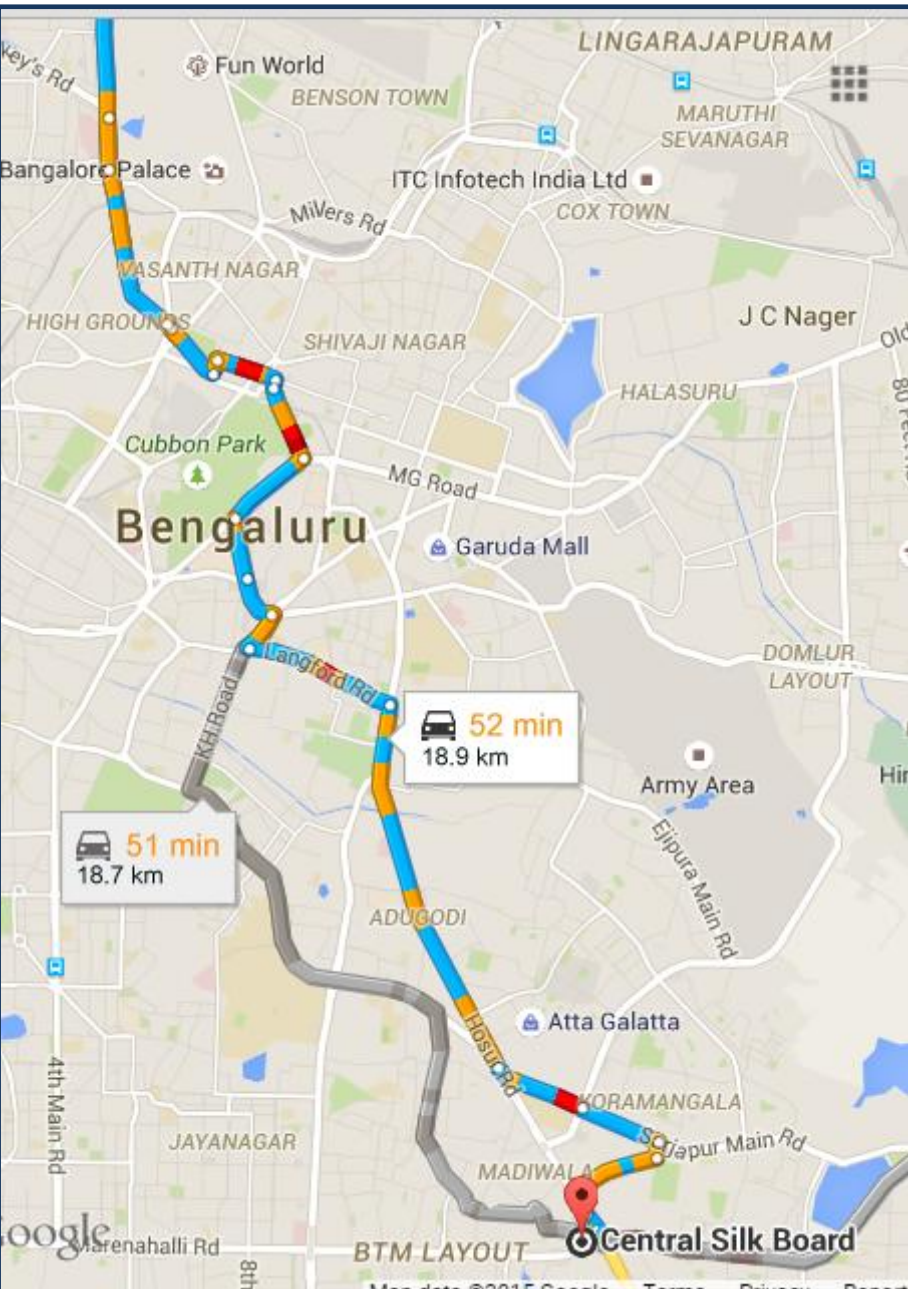
How I wish I can predict traffic..



# BA Perspectives - consolidated

- Analytics should already be part of our skill, if it is not, ADD IT
- Focus to be added: Integration
- System Requirements take centerstage
- Understanding of technology – sensors, will need to be added as a new skill ... in some cases
- Guidance for testing – that much stronger focus on System Integration Testing, with more and more scenarios
- Testing will also become more complex and might possibly need to utilize some data testing techniques used in Risk Management and Capital Markets





# Thank You!



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